

**II. AMENDMENT TO THE CLAIMS:**

**[C1]** (cancelled)

**[C2]** (currently amended) The system of claim [4] Z including the further steps of ~~[conducting a computer simulation with respect to the assembly,]~~ refining the assembly in view of the simulation and updating the data associated with the refined assembly before the record of the assembly is returned to a [in the parts data] list [maintained] recorded in the library.

**[C3]** (currently amended) The system of claim [4] Z in which the virtual [computer] simulation ~~[format data record]~~ produces a data record for meshed parts that includes an association of ~~[material]~~ properties of the type of material from which a part is formed ~~[to the meshed parts to distinguish between different materials].~~

**[C4]** (currently amended) The system of claim [4] Z in which the number of mesh data elements [recorded] utilized in the record of [to simulate] a part to be processed ranges from approximately 100 points to approximately 100,000 or more points.

**[C5]** (currently amended) The system of claim 2 in which the ~~[computer]~~ virtual simulation ~~[format data record]~~ is ~~[accessed for evaluation]~~ conducted with respect to one or more than one of crash impact, durability and noise.

TURK, Daniel J. and AKUZAWA, Kenji; Serial Number: 10/616,140; WHITE BODY MODELING AND VIRTUAL EVALUATION SYSTEM ...  
AMENDMENT AND RESPONSE TO THE OFFICE COMMUNICATION MAILED ON JUNE 27, 2006

PAGE 2 OF 11 PAGES

**[C6]** (cancelled)

**[C7]** (new) A white body modeling system integrating information from disparate sources involved in a process involving a task group associated with a mechanical assembly comprising:

a library comprising data files that record in a format corresponding to one or more lists: 1) parts and the characteristics of the parts retrievable from a work station in the task group upon the selection of a part; and 2) welds and characteristics of welds, retrievable from a work station in the task group upon the selection of a weld;

a network linking the library data files to work stations of task group members involved with a mechanical assembly;

work stations associated with the task group members for 1) selecting a plurality of parts from the one or more than one parts list in the library; 2) extracting the data files from the library associated with the parts selected; 3) associating the selected parts and their data files in an assembly in which the selected parts are to be conjoined; 4) processing the selected parts through a mesh process; 5) saving the assembly mesh data in a database; 6) selecting a weld and the characteristics of the weld to be utilized to conjoin selected parts in an assembly; 7) building the assembly by associating mesh data with weld data; 8) translating the assembly so built into a virtual simulation format data record; 9) performing a virtual simulation of the assembly; 10) recording the

TURK, Daniel J. and AKUZAWA, Kenji; Serial Number: 10/616,140; *WHITE BODY MODELING AND VIRTUAL EVALUATION SYSTEM ...*  
AMENDMENT AND RESPONSE TO THE OFFICE COMMUNICATION MAILED ON JUNE 27, 2006

PAGE 3 OF 11 PAGES

characteristics of the assembly in the simulation; and 11) returning a record of the assembly and the characteristics of the assembly simulation to the library such that records of the assembly and the characteristics of assembly simulation become available as a data file record of a part for retrieval in the library.

**[C8]** (new) A white body modeling system integrating information from disparate sources generated by a task group associated with a mechanical assembly comprising:

a library comprising data files that record in a format corresponding to one or more lists: 1) parts and the characteristics of the parts, retrievable from a work station in the task group upon the selection of a part from a list and 2) welds and characteristics of welds, retrievable from a work station in the task group upon the selection of a weld;

a network linking the library data files to work stations of members of a task group involved with a mechanical assembly;

work stations linked to the network for 1) selecting parts from the one or more than one lists in the library; 2) extracting the data files from the library associated with the parts selected; 3) associating the selected parts and their data files in an assembly in which the selected parts are to be conjoined; 4) processing the selected parts through a mesh process; 5) saving the assembly mesh data in a database; 6) selecting from the one or more than one lists in the library a weld to be utilized to conjoin selected parts in an assembly; 7) building the assembly by associating mesh data with weld data; 8) translating the assembly so built into a virtual simulation format data record; 9) performing a virtual simulation of the assembly with respect to predetermined

TURK, Daniel J. and AKUZAWA, Kenji; Serial Number: 10/616,140; WHITE BODY MODELING AND VIRTUAL EVALUATION SYSTEM ...  
AMENDMENT AND RESPONSE TO THE OFFICE COMMUNICATION MAILED ON JUNE 27, 2008

PAGE 4 OF 11 PAGES

parameters; 10) recording the characteristics of the assembly in the simulation; and 11) returning a record of the data files of the assembly and the characteristics of the virtual simulation of the assembly to the library; and

a continuous loop in the library for maintaining a feedback record of the characteristics of the assembly after a simulation of the assembly such that the assembly, the characteristics of the assembly and the characteristics of the assembly simulation of the assembly become available for retrieval from the library as a selectable part.

**[C9]** (new) The system of claim 8 wherein the feedback to the library through the continuous loop ultimately results in a tested and refined assembly approved for commercial release.

**[C10]** (new) The system of claim 8 wherein the library data file for a part includes tags for connection locations between parts selected to be conjoined in an assembly.

**[C11]** (new) The system of claim 9 wherein the library data files for a part or an assembly are refined in an actively updated interactive database within the library commonly accessible by work stations associated with members of the task group from the beginning of a design process to the end of a design process.

**[C12]** (new) The system of claim 8 wherein of the characteristics of an assembly of selected parts that are conjoined are recorded for one or more than one of a noise simulation, crash simulation and durability simulation.

**[C13]** (new) The system of claim 8 wherein, in the process of building the assembly by associating mesh data with weld data relating to the manner in which conjoined parts are welded in the assembly, imperfections in the mesh are identified and fixed.

**[C14]** (new) The system of claim 8 wherein in the continuous loop, each modification made in any stage of building and evaluating an assembly is recorded and is separately selectable as a discrete step in a continuum of testing and improvement in a design cycle.

**[C15]** (new) The system of claim 8 wherein the network links more than one of a design work station, an assembly work station and a simulation work station.

**[C16]** (new) The system of claim 8 wherein the network links a design work station, an assembly work station and a simulation testing work station.

**[C17]** (new) The system of claim 8 wherein the task group is associated with a motor vehicle assembly.

**[C18]** (new) The system of claim 7 wherein the network links more than one of a design work station, an assembly work station and a simulation work station.

**[C19]** (new) The system of claim 7 wherein the network links a design work station, an assembly work station and a simulation testing work station.

**[C20]** (new) The system of claim 7 wherein the task group is associated with a motor vehicle assembly.